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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,611	09/19/2003	Tsao-Tsen Chen	Chen 4-6-8-40	6406
30541 7590 05/15/2007 LAW OFFICE OF JOHN LIGON 213 E. HIGHLAND AVENUE P.O. BOX 281 ATLANTIC HIGHLANDS, NJ 07716			EXAMINER WIN, AUNG T	
			ART UNIT 2617	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/665,611	Applicant(s) CHEN ET AL.	
	Examiner Aung T. Win	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 20 is/are rejected.
- 7) ☒ Claim(s) 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

a. The method as claimed in Claim 20 raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a particular machine or apparatus or operate to change articles or materials to a different state or thing which would result in a practical application producing a useful, concrete, and tangible result to form the basis of statutory subject matter under 34 U.S.C 101.

Claims 20 claim a program code implemented method step, which are functional descriptive material with no practical application. The method is not claimed as embodied in computer-readable medium provided with **instructions capable of being executed by a computer** are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

Art Unit: 2617

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11 & 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "sufficiently high" in claims 11 & 12 is a relative term which renders the claim indefinite. The term "sufficiently" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Manning et al. (US006088578A).

- 3.1 Regarding Claim 1, Manning discloses a method for managing a data burst comprising the steps of:

Determining one or more input parameters [input parameters: Column 5, Line 20-34 & Figure 4];

Selecting data rate [data rate = numbers of channels over time period] for the data burst as a function of the input parameter [input parameters: Figure 4]; and

Selecting a data burst duration [i.e., time of burst: Figure 3] respective to selected data rate for the data burst as a function of the selected data rate.

3.2 Claim 2 is rejected for the same reason as stated above in Claim 1 rejection.

Manning discloses selecting duration is further made as a function of an end-of-burst data residue parameter (selecting Time of Burst for each channel rate in a way that no data is left in the buffer after burst transmission).

3.3 Claim 3 is also rejected for the same reason as stated above in Claim 1 rejection.

Manning discloses selecting duration is further comprises: evaluating a plurality of burst durations and selecting the duration that, when applied with the selected data rate, provides a minimum end-of-burst data residue (selecting Time of Burst in a way for each data rate that no data is left in the buffer after burst transmission).

3.4 Claim 4 is rejected for the same reason as stated above in Claim 1 rejection.

Manning discloses the measure of input data rate [data rate received from application: Figure 4] and amount of data available in an input data buffer at the beginning of the data burst [i.e., requesting data burst for transmitting 8000 bytes: Column 3, Line 54-Column 4, Line 58] [Figure 3 & 4]

3.5 Claim 5 is rejected for the same reason as stated above in Claim 1 rejection.

Manning discloses that data burst request is based on input data rate received from application. It is inherent that data rate is determined by a function of amount of data over determined time i.e., claimed observation interval.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manning et al. (US006088578A).

4.1 Regarding Claims 6 & 7, Manning discloses the step of selecting a data rate includes the step of:

Determining lowest supported operating channel rate i.e., (sending data using 2 channels over time period: Figure 3) based on input data rate parameters. Manning also discloses that the determined lowest supported operating channel rate would accommodate increased data in buffer [request data burst when buffer is filling faster than can be transmitted on a single channel: Column 3, Line 2-17]. Manning does not explicitly disclose determining minimum required data rate as claimed. However, it is obvious to one of ordinary skill in the art that minimum required data rate must be determined in requesting additional data burst that is equal to or greater than required data rate in order to accommodate increased data in buffer as taught by Manning.

Therefore, it is obvious that Manning's method would comprise minimum required data rate determining step as claimed for preventing buffer from overflowing.

5. Claims 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Manning et al. (US006088578A) in view of Malmlof (US006594241B1).

5.1 Regarding Claim 8, Manning discloses a method for managing a data burst comprising the steps of:

Determining one or more input parameters [input parameters: Column 5, Line 20-34 & Figure 4];

Transmitting a data burst (i.e., forming a new data burst) based on channel request information transmitted to base station when its transmitting buffer is filling faster [Column 3, Line 2-16].

Manning does not explicitly teach threshold however one of ordinary skill in the art would realize buffer fills faster when data input is more than data output over time.

Malmlof discloses using high capacity channel (i.e., new data burst) when transmitting buffer is full (claimed threshold) over analyzed time interval.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention of made to modify Manning's method as claimed based on a threshold as taught by Malmlof. One of ordinary skill in the art at the time of invention of made to do this to prevent unnecessary burst request and to implement efficient data transmission method.

5.2 Regarding Claim 13, Manning discloses a method for managing a data burst comprising the steps of:

Determining one or more input parameters [input parameters: Column 5, Line 20-34 & Figure 4];

Arranging a data burst to transmit by sending channel request to base station when its transmitting buffer is filling faster [Column 3, Line 2-16].

Manning does not explicitly teach determining the residual data in the transmitting buffer. However one of ordinary skill in the art would determine buffer fills faster when residual data in the buffer is more than previous residual data.

Malmlof discloses using high capacity channel (i.e., new data burst) when transmitting buffer is full (claimed threshold) over analyzed time interval.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention of made to modify Manning's method as claimed based on residual data in the buffer as taught by Malmlof. One of ordinary skill in the art at the time of invention of made to do this to prevent unnecessary burst request and to implement efficient data transmission method.

5.3 Claim 9 is rejected for the same reason as stated above in Claim 8 rejection. Manning discloses the measure of input data rate [data rate received from application: Figure 4] and amount of data available in an input data buffer at the beginning of the

Art Unit: 2617

data burst [i.e., requesting data burst for transmitting 8000 bytes: Column 3, Line 54-Column 4, Line 58] [Figure 3 & 4].

5.4 Claim 10 is rejected for the same reason as stated above in Claim 9 rejection because modified method as stated above would teach requesting new data burst as claimed when the buffer is filled over a threshold [Malmlof: threshold T3 in Figure 8].

5.5 In light of 112 rejections stated above, Claims 11 & 12 are rejected for the same reason as stated above in Claims 9 & 10 rejections. Modified method teaches that input data rate is determined as high to trigger a new burst request data when buffer is filling faster than that can be accommodated by current assigned burst wherein determination is made by setting buffer capacity threshold as stated above.

5.6 Claim 14 is rejected for the same reason as stated above in Claim 13 rejection because claimed step substantially close to corresponding method of Claim 13. Modified method teaches requesting a data burst by evaluating buffer capacity against a threshold as stated above in claim 13.

5.7 Claim 15 is rejected for the same reason as stated above in Claim 13 rejection. In modified method, data burst can be requested for higher data rate because mobile realizes that mobile is using one channel i.e., data rate (i.e., using one channel) for a data burst under consideration is less than a maximum supported data rate (i.e., using 6

Art Unit: 2617

channels supported by mobile station). It is also obvious to one of ordinary skill in the art that such determination step must be done in order to avoid unnecessary signaling.

Allowable Subject Matter

6. Claims 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kuo et al. US 6542718 B1

Cloutier et al. US 6891852 B1

Balogh et al. US 20020075827 A1


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung T. Win whose telephone number is (571) 272-7549. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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May 10, 2007


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